

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011966**Date Inspected:** 03-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Du Zhiquan.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% and randomly Visual Testing of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified Tower Strut. The weld designations reviewed are as follows.

ED1-STSA3-2-99M-1- 61,64,31,24,28,32,44,21,23,52,11,10,54,15,53,14,42,41,37,26,29,

NDT Notification No: 005171

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% and randomly Visual Testing of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified Tower Strut. The weld designations reviewed are as follows.

ED1-STSA3-2-109M-2- 10,11,44,48,22,32,31,35,30,33,34,45,14,15,54,58,64.

NDT Notification No: 005176

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## WELDING INSPECTION REPORT

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This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% and randomly Visual Testing of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified Strut Flange Plate. The weld designations reviewed are as follows.

ND1-STSA4-6-131M-1-7,8    ND1-STSA4-6-131M-2-7,8

ED1-STSA4-6-131M-1-7,8    ED1-STSA4-6-131M-2-7,8

ND1-STSA4-6-127M-1-7,8    ND1-STSA4-6-127M-2-7,8

ED1-STSA4-6-139M-1-7,8    ED1-STSA4-6-139M-2-7,8

ND1-STSA4-6-135M-2-7,8

NDT Notification No: 005174

This QA Inspector observed the following work in progress:

### BAY 10

#### Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, Perform Shielded Metal Arc Welding (SMAW) on Tower Strut plate. The weld identified as ND1-STSA3-1-89M-1-26A(B), ZPMC QC Identified as Liu Yang, with Critical welding repair report, CWR-T-CWR566. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-FCM- Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 050289. Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 4 back fill plate weld. Joint identified as SSTL4-1G/L-98, near Double Diaphragm 127 M . ZPMC QC Identified as Lilin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U2a-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 052493. Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 4 back fill plate weld. Joint identified as SSTL4-1G/L-29, near Double Diaphragm 127M bottom. ZPMC QC Identified as Du Zhiquan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U2a-1.

This QA Inspector observed during random Visual inspection, ZPMC Magnetic Particle Testing (MT) Inspector performed MT on Tower Strut Plate, The Item identified as ED1-STSA3-2-89M-2 and ND1-STSA3-1-109M-1 For more information see attached photos.

### BAY 11

This QA Inspector observed ZPMC qualified welding personnel identified as 044552. Perform Submerged Arc Welding (SAW) on East Tower lift 5, Skin D/E corner joint, joint identified as ESD1-TL5-2B/F-24A, ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3221-C-U2b-S.

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This QA Inspector observed ZPMC qualified welding personnel identified as 040699. Perform Submerged Arc Welding (SAW) on East Tower lift 5, Skin D/E corner joint, joint identified as ESD1-TL5-2B/F-40B, ZPMC CWI Identified as An Quin Xiang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3221-C-U2b-S.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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